

REMARKS/ARGUMENTS

This Amendment is being filed in response to the Final Office Action mailed May 27, 2009, which has been reviewed and carefully considered. Reconsideration and allowance of the present application in view of the amendments made above and the remarks to follow are respectfully requested.

Claims 1-23 are pending in the application. Claims 1, 17 and 23 are independent claims. By means of the present amendment, the claims are amended for non-statutory reasons, such as for better conformance to U.S. practice as well as correcting certain informalities noted upon review of the claims. By these amendments, the claims are not amended to address issues of patentability and Applicant respectfully reserves all rights under the Doctrine of Equivalents. Applicant furthermore reserves the right to reintroduce subject matter deleted herein at a later time during the prosecution of this application or continuing applications.

In the Final Office Action, claims 1-14 and 16 are rejected under 35 U.S.C. §102(b) over U.S. Patent No. 6,481,453 to O'Connor ("O'Connor"). Claim 15 is rejected under 35 U.S.C. §103(a) over O'Connor in view of U.S. Patent No. 5,876,675 to Kennedy

("Kennedy"). Claims 1-23 are rejected under 35 U.S.C. §103(a) over U.S. Patent No. 6,540,896 to Manz ("Manz") in view of O'Connor. These rejections are respectfully traversed. It is respectfully submitted that claims 1-23 are patentable over O'Connor alone and in view of any combination of Kennedy and Manz for at least the following reasons.

O'Connor is directed to microfluidic devices and methods for metering discrete plugs of fluid. O'Connor is clear that (emphasis added) "[e]ach branch channel is filled, directly from the trunk channel, to each fluidic impedance region with a portion of the first fluid volume. A second fluid is used to flush the remaining portion of the first fluid from the trunk channel through the fluidic outlet while each branch channel remains substantially filled." (See, O'Connor, FIG. 1B, and Col. 4, lines 1-6.) In fact, O'Connor teaches that the (emphasis added) "[t]he amount of sample now ready for further analysis is defined by the volume of channel 139 between the second and third impedances 144,145." (See, O'Connor, Col. 9, lines 19-22.) "Once the air in channel 140 has been compressed sufficiently to build up enough pressure, the second impedance 145 is overcome. The sample now enters chamber 141 and fills the entire chamber up to three fourth impedances 146A-

146C. Once this chamber 141 has been completely filled, the fourth impedances 146A-146C are overcome and the samples can now be exported off the device for further analysis. (See, O'Connor, Col. 9, lines 26-33, emphasis added.)

Similarly regarding FIG. 4b utilized by the Final Office Action in rejecting the claims, O'Connor makes clear that (emphasis added) "[f]rom the trunk channel 313, the first fluid fills all of the branch channels 314A-314N before any surplus first fluid exits the device 300 by way of via 316 through the outlet port 311 ... The volume of each of the plugs is approximately equal to the volume of each branch channel 314A-314N." (See, O'Connor, Col. 13, lines 1-4 and lines 12-14, utilized in the Final Office Action in rejecting the claims.)

While the Final Office Action alleges that "the device of O'Connor is fully capable of having the flush fluid control means operated to simultaneously produce consecutively arranged series of independent sample plugs in each of the plurality of sample channels if one so desired" (see, Final Office Action, page 3), in fact, O'Connor specifically utilizes the size of a collection channel/chamber, to closely control the volume of a sample fluid as should be clear from the discussion above, and as such, each

channel is only capable of collecting a single sample.

The Final Office Action erroneously concludes that "such a recitation [as recited in the claims of the present application] is an intended use of the device." The Final Office Action states that "[a] recitation directed to the manner in which a claimed apparatus is intended to be used does not distinguish the claimed apparatus from the prior art, if the prior art has the capability to so perform. The recitation of a new intended use for an old product does not make a claim to that old product patentable. In re Schreiber, 44 USPQ2d 1429 (Fed. Cir. 1997)." (See, Final Office Action, page 3.)

While this is a proper statement of the law regarding an intended use as a claim recitation, it is respectfully submitted that this characterization of the claims as merely reciting an intended use is respectfully refuted.

Further, it is respectfully submitted that the mere fact that a prior art device could be modified so as to produce the claimed device is not a basis for an obviousness rejection unless the prior art suggested the desirability of the modification. See, In re Gordon, 733 F.2d 900, 902 (Fed. Cir. 1984); and In re Laskowski, 871 F.2d 115, 117 (Fed. Cir. 1989).

In this case, it must be pointed out O'Connor specifically teaches against any such modification since it would render the fluid measuring based on the length of the collection tubes inoperable.

It is respectfully submitted that the presently pending claims do not recite an "intended use" as contemplated by *In re Schreiber*. Rather, claims 1-16 define the features of the device, using functional language. It is well established that it is entirely proper to define an invention in functional terms. See, e.g., *In re Swinehart*, 439 F.2d 210, 169 U.S.P.Q. 226 (C.C.P.A. 1971). The mere fact that the Applicant chooses to cast the claims in this form does not mean that the functional language can be ignored. It is impermissible for the Patent Office to refuse to provide patentable weight to functional limitations. See, e.g., *In re Land*, 151 U.S.P.Q. 621 (C.C.P.A. 1966) in which the court held that portions of a disputed claim were functional, but nevertheless held the claim patentable over the prior art in view of the functional limitations. The Patent Office must afford patentable weight to functional limitations even if the functional limitations are the only limitations that are nonobvious over the prior art. *In re Mills*, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990). See also *In re*

Atwood, 148 U.S.P.Q. 203,210 (C.C.P.A.. 1966) ("[w]e have here a combination claims and the limitations ignored by the board as use limitations we think are functional expressions which must be given weight"); In re Mills, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990); In re Zurko, 111 F.3d 887, 42 USPQ2d 1476 (Fed. Cir.), reh'g en banc granted, 116 F.3d 874 (Fed. Cir. 1997).

Applicant also calls to the Examiner's attention to M.P.E.P. § 2173.05(g). This section expressly authorizes the use of functional language and specifically acknowledges that "[a] functional limitation must be evaluated and considered, just like any other limitation of the claim, for what it conveys to a person of ordinary skill in the pertinent art in the context in which it is used."

Finally, Applicant notes that claim 1 for example recites "a flush fluid control means...." and provides actions that the flush fluid control means performs. Thus, this limitation of claim 1 is cast in means-plus-function format.

35 U.S.C. §112, paragraph 6, states that (emphasis added) "[a]n element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof ..." 35

U.S.C. §112, paragraph 6, further provides that "such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof."

Accordingly, as statutorily provided, it is proper that the Applicant may elect to recite claim limitations in a so-called means plus function format, and the Final Office Action is not free to ignore these claim recitations.

As noted in the MPEP §2182, "[b]oth before and after Donaldson, the application of a prior art reference to a means or step plus function limitation requires that the prior art element perform the identical function specified in the claim."

It is respectfully submitted that the Final Office Action has failed to meet this burden since neither O'Connor alone and in view of any combination of Kennedy and Manz teach, disclose or suggest the above claims recitations.

It is respectfully submitted that the fluidic device for producing consecutive series of plurality of independent sample plugs of claim 1 is not anticipated or made obvious by the teachings of O'Connor alone and in view of any combination of Kennedy and Manz. For example, O'Connor alone and in view of any combination of Kennedy and Manz does not disclose or suggest, a

fluidic device that amongst other patentable elements, comprises (illustrative emphasis added) "a flush fluid control means positioned to traverse said plurality of sample channels downstream the location where the sample fluid is analyzed or treated in said device, said flush fluid control means having flush fluid inlet means and flush fluid outlet means in communication with each of said plurality of sample channels, and said flush fluid control means being for controlling the fluid composition in said plurality of sample channels; and at least one individual threshold provided in each of said plurality of sample channels, wherein the flush fluid control means simultaneously produces consecutively arranged series of independent sample plugs in each of the plurality of sample channels" as recited in claim 1, and as similarly recited in each of claims 17 and 23.

These features are nowhere taught or suggested in O'Connor alone and in view of any combination of Kennedy and Manz. It is noted that Kennedy is cited in the Final Office Action merely to allegedly show other features and does not remedy the discussed deficiencies in O'Connor and Manz.

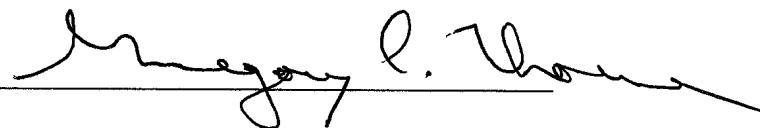
Based on the foregoing, the Applicant respectfully submits that independent claims 1, 17 and 23 are patentable over O'Connor

alone and in view of any combination of Kennedy and Manz and notice to this effect is earnestly solicited. Claims 2-16 and 18-22 respectively depend from one of claims 1 and 17, and accordingly are allowable for at least this reason as well as for the separately patentable elements contained in each of the claims. Accordingly, separate consideration of each of the dependent claims is respectfully requested.

In addition, Applicant denies any statement, position or averment of the Examiner that is not specifically addressed by the foregoing argument and response. Any rejections and/or points of argument not addressed would appear to be moot in view of the presented remarks. However, the Applicant reserves the right to submit further arguments in support of the above stated position, should that become necessary. No arguments are waived and none of the Examiner's statements are conceded.

Applicant has made a diligent and sincere effort to place this application in condition for immediate allowance and notice to this effect is earnestly solicited.

Respectfully submitted,

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